**Practice test Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Multiple Choice & Numerical Response**

Complete each of the following questions. Record your answers to each question on page 5. Multiple choice questions must be bubbled in completely. Numerical response questions should be filled from left to right.

1. The expanded form of **6(m-2n) - (4m-5n)** is
2. 
3. 
4. 
5. 
6. When simplified, the expression (x-7)2 is
	1. x2- 7x + 49
	2. x2 – 14x + 49
	3. x2 + 49
	4. x2 - 49
7. In the area diagram the shaded area represents positive. The diagram that represents the product of is

**A. B.**

**C. D.**

1. The greatest common factor of the expression, 1*8x*2 *y* + 2*7xy*2 - 4*5xy* , is

**A.** *xy*

**B.** *3xy*

**C.** *6xy*

**D.** *9xy*

1. The area of a camp kitchen is a rectangle represented by *x*2 + *5x* + 6. One of the dimensions is

**A.** (*x* + 6)

**B.**  (*x* + 4)

**C.** (*x* + 3)

**D.** (*x* + 1)

*Use the following dimensions of a soccer field to answer question 11.*

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1. The length of the soccer field is

**A.** *7q3r2 – 3qr2 - qr*

**B.** *7q5r3 – 3q2r3 – q2r2*

**C.** *7q3r2 – 3r*

**D.** *7q3r2 – 3r - 1*

**Numerical Response 3**

The value of *k* that makes the trinomial 36*x*2 + ***k****x* + 49 a perfect square is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. One of the factors of 6*x*2 + 17*x* + 5 is

**A.** 3*x* + 5

**B.** 2*x* + 5

**C.** 2*x* + 1

**D.** 6x + 1

**Written Response**

For full marks show your work for each question.

1. Factor the following expressions fully (5 marks)
	1. 2xy2 + 2x + xy b. 6*x*2 – 26*x* + 8.
2. *x*2 + 7*x* + 6. d.  *n*2 – 81
3. Kim owns a square piece of land with a side length of *a* metres. He extends his property by purchasing adjacent land so that the length is increased by 10 m and the width by 12 m. ( 3 marks)
4. Write a simplified algebraic expression for the area of Kim’s extended property.
5. Calculate the actual area of Kim’s land if *a*= 14m.
6. Draw a diagram to model the binomial multiplication (2*x* + 3)(*x* + 1).Write the solution as a simplified expression. (2 marks)

Answer key

1. D
2. B
3. D
4. D
5. C
6. D

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1. B

Written Response

1. A) x(2y2 + 2 + y)

B) 2(3x-1)(x-4)

C)(x+6)(x+1)

D) (n-9)(n+9)

1. A) (a+10)(a+12) = a2 + 10a+12a+120= a2 + 22a+120

B)624 m2